

What is claimed is:

1. A business process system for transmitting and receiving various pieces of business data by connecting an indefinitely large number of enterprises through a network, comprising:

a client terminal possessed by an order source connected to an open network layer, the client terminal being equipped with an application for realizing an architecture of a peer-to-peer network architecture, and serving as a member participating in the peer-to-peer network;

an order reception database connected to a network layer located inside an order reception base as a segment isolated from the open network layer, the order reception database being equipped with the application connecting to the client terminal by a peer-to-peer connection upon execution of the application by the client terminal, the order reception database recording data sent from the client terminal and reading data to be sent out of from the recorded data; and

a node connected to an intermediate network layer at the order reception base serving as a segment isolated from both the open network layer and the network layer located inside, the node collecting and temporally maintaining the data sent from the client terminal or the data read out of the order reception database and transferring the data to an appropriate destination.

2. The business process system according to claim 1, wherein the application includes:

a screen function for providing a data recording function and a data display function;

a translation function for receiving data recorded upon execution of the screen function or arbitrarily-created data and for converting the data into a format comprehensible to the order reception database;

a data carrier function as a base function for maintaining security beyond a firewall as well as reliably transmitting and receiving data; and

a database management function for receiving data received upon execution of the data carrier function, for capturing the data in a predetermined area of a database, and for retrieving data recorded in the database.

3. The business process system according to claim 2, wherein the client terminal executes the translation function to receive the data recorded upon execution of the screen function or the arbitrarily-created data and to convert the data into a format comprehensible to the order reception database, and wherein the client terminal executes the data carrier function to establish a connect session to the order reception

database through the node and to send the data converted with the translation function.

4. The business process system according to claim 3, wherein the order reception database executes the data carrier function to establish the connect session to the client terminal through the node and to receive data sent from the client terminal, and wherein the order reception database executes the database management function to receive and capture in a predetermined area of the database the data received upon execution of the data carrier function and to retrieve data recorded in the database.

5. The business process system according to claim 1, wherein the nodes are classified into a collector node composed of an information processing apparatus for collecting and temporarily maintaining data sent from the client terminal or data read out of the order reception database, and a master node composed of an information processing apparatus for performing authentication of access to the order reception database to transfer the data maintained by the collector node to an appropriate destination.

6. The business process system according to claim 1, further comprising an order reception base terminal connected to an in-house network at an order reception base connected to the open network layer, the intermediate network layer, and the inside network layer through a firewall, the order reception base terminal equipped with the application, wherein the order reception base terminal at least displays on a screen ordering data received through the node according to ordering to manage an ordering condition.

7. The business process system according to claim 1, wherein the open network layer is defined as a WAN layer, the intermediate network layer is defined as a DMZ layer, and the inside network layer is defined as a LAN layer.

8. A business process method for transmitting and receiving various pieces of business data by connecting an indefinitely large number of enterprises through a network, comprising steps of:

rendering a client terminal possessed by an order source connected to an open network layer, the client terminal being equipped with an application for realizing a peer-to-peer network architecture, and serving as a member participating in the peer-to-peer network, to convert data recorded through a screen or arbitrarily-created data into a format comprehensible to an order reception database at an order reception base and to send the converted data upon establishment of a connect session to the order reception database;

rendering a node connected to an intermediate network layer at the order reception base as a segment isolated from both the open network layer and a network

layer located inside the order reception base, to collect and temporarily maintain data sent from the client terminal or data read out of the order reception database to transfer the data to an appropriate destination; and

rendering the order reception database connected to the network located inside a segment isolated from both the open network layer and the intermediate network layer, and the order reception database being equipped with the application, to establish a peer-to-peer connection with the client terminal upon execution of the application by the client terminal to record data which was sent from the client terminal and transferred from the node and to read and pass data to be sent out of the recorded data to the node.

9. An information processing apparatus installed to a business process system connecting an indefinitely large number of enterprises through a network and transmitting and receiving various pieces of business data, serving as a member participating in a peer-to-peer network, equipped with an application for realizing a peer-to-peer network architecture, and connected to an open network, the information processing apparatus comprising:

a screen section for executing a screen function defined as a function of the application and providing a data recording function and a data display function;

a translation section for executing a translation function defined as a function of the application by receiving the data recorded upon execution of the screen function or the arbitrarily-created data, and by converting the data in a format comprehensible to an order reception database at an order reception base; and

a data carrier section for executing a data carrier function defined as a function of the application and as a base function for reliably transmitting and receiving data with maintenance of security beyond a firewall,

wherein the translation section executes the translation function to convert the data recorded upon execution of the screen function or the arbitrarily-created data in the format comprehensible to the order reception database, and wherein the data carrier section executes the data carrier function to send the converted data by establishing a connect session to the order reception database.

10. An information processing apparatus installed to a business process system connecting a large number of enterprises through a network and transmitting and receiving various pieces of business data, wherein the information processing apparatus is connected to an intermediate network at an order reception base as a segment isolated from an open network layer connected to a client terminal equipped with an application for realizing a peer-to-peer network architecture and from an inside

network at the order reception base serving as a member participating in a peer-to-peer network, and possessed by an order source, and wherein the information processing apparatus collects and temporally maintains data sent from the client terminal or data read out from the order reception database at the order reception base connected to the inside network layer and transfers the data to an appropriate destination.

11. An information processing apparatus installed to a business process system connecting an indefinitely large number of enterprises through a network and transmitting and receiving various pieces of business data, connected to a network layer located inside an order reception base isolated from an open network layer connected to a client terminal equipped with an application for realizing a peer-to-peer network architecture and possessed by an order source, serving as an order reception database at the order reception base, and equipped with the application, the information processing apparatus comprising:

a data carrier section for executing a data carrier function as a function of the application and as a base function for reliably transmitting and receiving data with maintenance of security beyond a firewall; and

a database management section for executing a database management function as a function of the application, receiving the data received upon execution of the data carrier function, capturing the data in a predetermined area of a database, and retrieving the data recorded in the database,

wherein the data carrier section executes the data carrier function to establish a connect session to the client terminal through the node connected to an intermediate network layer at an order reception base as a segment isolated from the open network layer and from the inside network layer and to receive data sent from the client terminal after conversion in a format comprehensible to the database and temporarily maintained and then transferred by the node, and wherein the database management section executes the database management function to receive the data received upon execution of the data carrier function, to capture the data in the predetermined area of the database, and to retrieve data recorded in the database.